

AMENDMENT

In the Claims

1. (Previously Amended) An electronically tunable RF Front End Module, comprising:
an antenna for transmitting and receiving a plurality of RF signals;
a first RF switch in communication with said antenna for switching a plurality of groups of RF signals;
a second RF switch in communication with said first RF switch for switching between transmit and receive signals;
a tunable band pass filter associated with said second RF switch for distinguishing received selected RF signals from said plurality of received RF signals, wherein said tunable band pass filter associated with said second RF switch utilizes voltage tunable dielectric capacitors to enable tuning;
a low pass filter associated with said second RF switch for transmitting selected RF signals from said plurality of RF signals;
a third RF switch in communication with said first RF switch for switching between transmit and receive signals;
a tunable band pass filter associated with said third RF switch for distinguishing received selected RF signals from said plurality of received RF signals; and
a low pass filter associated with said third RF switch for transmitting selected RF signals from said plurality of RF signals.
2. (Original) The electronically tunable RF Front End Module of claim 1, wherein said tunable band pass filter associated with said second RF switch for distinguishing received selected RF signals from said plurality of received RF signals, distinguishes between frequencies in the DCS and PCS bands.
3. (Original) The electronically tunable RF Front End Module of claim 1, wherein said low pass filter associated with said second RF switch for transmitting selected RF signals from said plurality of RF signals, selectively transmits signals in the DCS and PCS frequency bands.

4. (Original) The electronically tunable RF Front End Module of claim 1, wherein said tunable band pass filter associated with said third RF switch for distinguishing received selected RF signals from said plurality of received RF signals distinguishes between frequencies in the GSM 800 and GSM 900 bands.
5. (Original) The electronically tunable RF Front End Module of claim 1, wherein said low pass filter associated with said third RF switch for transmitting selected RF signals from said plurality of RF signals, selectively transmits signals in the GSM 800 and GSM 900 frequency bands.
6. Cancel Claim 6.
7. Cancel Claim 7.
8. Cancel Claim 8.
9. Cancel Claim 9.
10. Cancel Claim 10.
11. (Original) The electronically tunable RF Front End Module of claim 1, wherein said tunable band pass filter associated with said third RF switch utilizes voltage tunable varactors to enable tuning.
12. Cancel claim 12.
13. Cancel claim 13.
14. (Original) The electronically tunable RF Front End Module of claim 1, further comprising:

a duplexer associated with said second RF switch, said duplexer outputting an RF signal to a bandpass filter for transmitting a selected RF signal and receiving a selected RF signal from said bandpass filter.

15. (Previously Amended) A method of electronically tuning an RF front end using an RF Front End Module, comprising:

transmitting and receiving a plurality of RF signals via an antenna;
switching a plurality of RF signals by frequency bands with a first RF switch in communication with said antenna;

switching between transmit and receive signals with a second RF switch in communication with said first RF switch;

distinguishing received selected RF signals from said plurality of received RF signals with a tunable band pass filter associated with said second RF switch, wherein said tunable band pass filter associated with said second RF switch utilizes voltage tunable dielectric capacitors to enable tuning

transmitting selected RF signals from said plurality of RF signals with a low pass filter associated with said second RF switch;

switching between transmit and receive signals by a third RF switch in communication with said first RF switch;

distinguishing received selected RF signals from said plurality of received RF signals with a tunable band pass filter associated with said third RF switch; and

transmitting selected RF signals from said plurality of RF signals with a low pass filter associated with said third RF switch.

16. (Original) The method of electronically tuning an RF front end using an RF Front End Module of claim 15, wherein said tunable band pass filter associated with said second RF switch for distinguishing received selected RF signals from said plurality of received RF signals, distinguishes between frequencies in the DCS and PCS bands.

17. (Original) The method of electronically tuning an RF front end using an RF Front End Module of claim 15, wherein said low pass filter associated with said second RF switch for

transmitting selected RF signals from said plurality of RF signals, selectively transmits signals in the DCS and PCS frequency bands.

18. (Original) The method of electronically tuning an RF front end using an RF Front End Module of claim 15, wherein said tunable band pass filter associated with said third RF switch for distinguishing received selected RF signals from said plurality of received RF signals distinguishes between frequencies in the GSM 800 and GSM 900 bands.

19. (Original) The method of electronically tuning an RF front end using an RF Front End Module of claim 15, wherein said low pass filter associated with said third RF switch for transmitting selected RF signals from said plurality of RF signals, selectively transmits signals in the GSM 800 and GSM 900 frequency bands.

20. Cancel Claim 20.

21. Cancel Claim 21.

22. Cancel Claim 22.

23. Cancel Claim 23.

24. Cancel Claim 24.

25. (Original) The method of electronically tuning an RF front end using an RF Front End Module of claim 15, wherein said tunable band pass filter associated with said third RF switch utilizes voltage tunable varactors to enable tuning.

26. Cancel claim 26.

27. Cancel claim 27.

28. (Original) The method of electronically tuning an RF front end using an RF Front End Module of claim 15, further comprising:

outputting a duplexed RF signal, duplexed via a duplexer associated with said second RF switch, to a bandpass filter for transmitting a selected RF signal and receiving a selected RF signal from said bandpass filter.

29. (Original) The method of electronically tuning an RF front end using an RF Front End Module of claim 15, wherein said selected transmitted RF signal and selected received RF signal is a signal in the UMTS frequency band.

30. (Original) The electronically tunable RF Front End Module of claim 14, wherein said selected transmitted RF signal and selected received RF signal is a signal in the UMTS frequency band.

31. (Previously Amended) An electronically tunable RF Front End Module, comprising:
a first tunable bandpass filter, said first tunable bandpass filter capable of being tuned to receive a plurality of distinct frequency bands, wherein said first tunable band pass filter utilizes voltage tunable dielectric capacitors to enable tuning;
a first lowpass filter capable of transmitting predetermined frequency bands;
a first switch in communication with said first lowpass filter and said first tunable bandpass filter for switching between said first tunable bandpass filter and said first low pass filter to enable switching between transmitting and reception of RF signals;
a second tunable bandpass filter, said second tunable bandpass filter capable of being tuned to receive a plurality of distinct frequency bands;
a second lowpass filter capable of transmitting predetermined frequency bands;
a second switch in communication with said second lowpass filter and said second tunable bandpass filter for switching between said second tunable bandpass filter and said second low pass filter to enable switching between transmitting and reception of RF signals; and

an antenna in communication with a third switch, said third switch enabling switching between said first and said second switch.

32. (Original) The electronically tunable RF Front End Module of claim 31, wherein said first tunable bandpass filter capable of being tuned to receive a plurality of distinct frequency bands tuned to receive frequencies in the DCS and PCS bands.

33. (Original) The electronically tunable RF Front End Module of claim 31, wherein said first lowpass filter capable of transmitting predetermined frequency bands, transmits signals in the DCS and PCS frequency bands.

34. (Original) The electronically tunable RF Front End Module of claim 31, wherein said second tunable bandpass filter capable of being tuned to receive a plurality of distinct frequency bands receives frequencies in the GSM 800 and GSM 900 bands.

35. (Original) The electronically tunable RF Front End Module of claim 31, wherein second lowpass filter capable of transmitting predetermined frequency bands transmits signals in the GSM 800 and GSM 900 frequency bands.

36. Cancel Claim 36.

37. Cancel Claim 37.

38. Cancel Claim 38.

40. Cancel Claim 40.

41. (Previously Amended) The electronically tunable RF Front End Module of claim 31, wherein said second tunable band pass filter utilizes voltage tunable varactors to enable tuning.

42. Cancel Claim 42.

43. Cancel Claim 43.

44. (Previously Amended) The electronically tunable RF Front End Module of claim 31, further comprising:

a duplexer associated with said first RF switch, said duplexer outputting an RF signal to a bandpass filter for transmitting a selected RF signal and receiving a selected RF signal from said bandpass filter.

45. (Previously Amended) The electronically tunable RF Front End Module of claim 454, wherein said selected transmitted RF signal and selected received RF signal is a signal in the UMTS frequency band.